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10/006,791	12/06/2001	Matti Lehtimaki	915.407	9904

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EXAMINER

LEVITAN, DMITRY

ART UNIT PAPER NUMBER

2662

DATE MAILED: 01/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/006,791

Applicant(s)

LEHTIMAKI ET AL.

Examiner

Dmitry Levitan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13/0601 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 12/06/01.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

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***Specification***

1. The disclosure is objected to, because abbreviations or acronyms GSM, Iu are cited throughout the specification without explanation. Applicant should provide a full explanation for the acronyms at least at their first occurrence in the specification.

Appropriate correction is required.

***Drawings***

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the claimed transmission network (claims 2, 3 and 22), TDMA network (claim 14) and packet network (claim 15) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified

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and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### *Claim Objections*

3. Claim 20 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claim 20 limitation "said first interface is an Iu interface" repeats claim 1 limitation "a first interface (Iu)".

### *Claim Rejections - 35 USC § 112*

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1-26 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The specification does not provide sufficient details to enable a skilled in the art to make and use the invention because it does not adequately describe the following:

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Regarding claims 1 and 21, how access network control device controls a gateway device and what is control information, necessary to control the gateway device.

Regarding claim 19, how to implement said access network control unit as a mobile switching center.

The specification does not provide enough details about the structure and operation of the elements associated with the above identified claimed features to enable one skilled in the art to make and use the invention without undue experimentation.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 2, 20 and 26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 2, the claim limitation “first interface is connected via a transmission network directly from said access network to said gateway device” is unclear, because an interface is known as a protocol/device interconnecting networks/devices, so connecting interface via another network is not understood. Also it is unclear if the interface is connected directly or via a network.

Regarding claims 20 and 26, the limitations “an IU interface” are unclear, because Iu interface was not disclosed in the application or well known term of the art.

*Claim Rejections - 35 USC § 102*

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 1, 4-6, 10, 11, 13, 19-21, 23 and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Narayanswamy (US 6,295,457).

10. Regarding claims 1, 4, 10, 20, 21, 23 and 26, Narayanswamy teaches a network and a method (Fig. 1 and 3:35-56) having at least one access network (cellular telephone network 102 and base station 114 on Fig. 1 and 3:37-44 and 4:24-25), a core network (control system 116, data network gateway 118 and data network 120 on Fig. 1 and 4:24-32) connected to the access network via a first interface (inherently part of the system, because all communication signals from the access/wireless network are directed to the control unit 116 through an interface essential for the signal routing between the networks 4:8-20), and at least one terminal device (mobile communication device 108 on Fig. 1),

a. Wherein said core network comprises at least one access control device (control unit 116 on Fig. 1 selecting a type of data designated to data network 4:14-23) via a second interface by transmitting control information (second interface is inherently part of the system, because communication between the control unit 116 and data network gateway is essential for the system operation and an interface is required for performing the communication), and

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- b.       Wherein said telecommunication network is adapted to route user data directly between said access network and said gateway via said first interface (routing data from a mobile device 108 to the data network gateway 118 on Fig. 1 and 4:7-23).

Note. Examiner gave no patentable value to Iu interface, interpreting it as an interface.

11.       Regarding claims 5 and 6, Narayanswamy teaches user data comprises speech (108 as a cellular telephone 3:53-55).

12.       Regarding claims 11 and 13, Narayanswamy teaches routing a user data through an Internet (3:55-57), inherently an IP network, because TCP/IP is a protocol used in Internet.

13.       Regarding claim 19 (as understood), Narayanswamy teaches said control unit is a mobile switching center (inherently part of the system, because mobile switching center is essential for hybrid base station 112 to operate as a cellular network and comprising the control unit 116).

### ***Claim Rejections - 35 USC § 103***

14.       The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15.       Claims 2, 3 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Narayanaswamy .

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Narayanaswamy substantially teaches the limitations of claims 2, 3 and 22, including first and second interfaces, access network and gateway, as described in rejection of claim 1 above, and another access network control device (control unit B in Fig. 2 and 5:25-44).

Narayanaswamy does not teach connecting radio access network via a transmission network.

Official notice is taken that connecting radio access network via a transmission network is well known and used when the access network is located far from the Internet access.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add connecting radio access network via a transmission network to the system of Narayanaswamy to improve the system flexibility with various locations of the radio access network.

16. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Narayanaswamy. Narayanaswamy teaches all the limitations of parent claims 1, 5 and 6.

Narayanaswamy does not teach using RTP protocol.

Official notice is taken that RTP protocol is well known and used for real time speech transmission.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add using RTP protocol to the system of Narayanaswamy to improve the system compatibility with devices using popular RTP protocol.

17. Claims 8, 9, 14, 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Narayanaswamy.

Narayanaswamy teaches all the limitations of parent claims 1 and 21.

Narayanaswamy does not teach using ISUP, MGCP or TDMA protocols for second interface.



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Official notice is taken that ISUP, TDMA and MGCP protocols are well known and used for transmitting data in telecommunication networks.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add using ISUP, TDMA or MGCP protocols to the system of Narayanaswamy to improve the system compatibility with devices using popular ISUP, TDMA or MGCP protocols.

18. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Narayanaswamy .

Narayanaswamy teaches all the limitations of parent claims 1 and 11.

Narayanaswamy does not teach using packet network as ATM network.

Official notice is taken that ATM network is well known and used for real time speech transmission.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add using ATM network to the system of Narayanaswamy to improve the system compatibility with devices using ATM.

19. Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Narayanaswamy in view of Zheng (US 5,745,477).

Narayanaswamy teaches all the limitations of parent claim 1.

Narayanaswamy does not teach using packet or ATM networks for transmitting control information.

Zheng teaches using packet or ATM networks for transmitting control information (using RM cells to transmit control information 2:1-25).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add using packet or ATM networks for transmitting control information of Zheng to the

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system of Narayanaswamy to utilize well known ATM control delivery method to make the system compatible with numerous available ATM devices.

20. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Narayanaswamy in view of Zheng (US 5,745,477).

Narayanaswamy teaches all the limitations of parent claim 1.

Zheng teaches using packet or ATM networks for transmitting control information (using RM cells to transmit control information 2:1-25).

Narayanaswamy and Zheng do not teach using IP for transmitting control information.

Official notice is taken that using IP for transmitting control information is well known and used to transmit the control information over Internet.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add using IP network for transmitting control information of Zheng in the system of Narayanaswamy to utilize Internet to make the system compatible with numerous available IP devices.

21. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Narayanaswamy in view of Admitted prior art.

Narayanaswamy teaches all the limitations of parent claim 1.

Narayanaswamy does not teach telecommunication network as UMTS network.

Admitted prior art teaches telecommunication network as UMTS network (Specification, Background of the invention, 2:3-6).

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to add telecommunication network as UMTS network of Admitted prior art to the system of Narayanaswamy to utilize well known standard.

*Conclusion*

22. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lupien	US006389008B1	Integrated radio telecommunication network.
Karlsson	US006226523B1	Internet protocol traffic filter for mobile radio network.
Low	US006798771B1	Call set-up gateway for telecommunication system.
Doviak	US006198920B1	Apparatus and system for intelligent routing.
Kamm	US005457680A	Data gateway for mobile data radio terminal.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dmitry Levitan whose telephone number is (571) 272-3093. The examiner can normally be reached on 8:30 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (571) 272-3088. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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